






## Cast cylinder head and block

**Patent number:** EP1057900  
**Publication date:** 2000-12-06  
**Inventor:** FEIKUS FRANZ JOSEF DR (DE); HEUSLER  
LEONHARD (DE)  
**Applicant:** VAW VER ALUMINIUM WERKE AG (DE)  
**Classification:**  
- **International:** C22C21/02; F02F1/00  
- **European:** C22C21/02; C22F1/043; F02F1/24; F02F7/00G  
**Application number:** EP20000111448 20000527  
**Priority number(s):** DE19991025666 19990604

**Also published as:**

 CA2310351 (A1)  
 EP1057900 (B1)  
 DE19925666 (C1)  
 CZ293797 (B6)

**Cited documents:**

 XP002146538

Abstract not available for EP1057900

Abstract of corresponding document: **DE19925666**

A cast cylinder head and engine block component, made of an aluminum-silicon alloy containing aluminum-nickel, aluminum-copper, aluminum-manganese and aluminum-iron and their mixed phases, is new. A cast cylinder head and engine block component, consisting of an aluminum alloy of composition 6.80-7.20% Si, 0.35-0.45% Fe, 0.30-0.40% Cu, 0.25-0.30% Mn, 0.35-0.45% Mg, 0.45-0.55% Ni, 0.10-0.15% Zn, 0.11-0.15% Ti, \0.05% each (\0.15% total) impurities and balance Al, contains aluminum-nickel, aluminum-copper, aluminum-manganese and aluminum-iron phases and their mixed phases. An Independent claim is also included for production of the above cylinder head and engine block component by casting at 720-740 deg C, cooling at 0.1-10 K/sec. to room temperature, solution annealing at 530 deg C for 5 hr., quenching in water at 80 deg C and artificially aging at 160-200 deg C for 6 hr.

---

Data supplied from the **esp@cenet** database - Worldwide